

## EOS Terra Validation Program

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The EOS Terra mission, launched in December 1999, is designed to provide a diverse set of measurements of great relevance to global change issues. Besides the fundamental radiance data sets obtained by the ASTER, CERES, MISR, MODIS and MOPITT instruments, numerous global geophysical data products will be generated, including cloud and aerosol parameters, land and ocean surface parameters including ecosystem descriptors, atmospheric chemistry (CO and CH<sub>4</sub>) parameters, and Earth radiation budget. A key component of the Terra mission is the validation of the science data products. This is essential for a mission focused on global change issues and the underlying physical processes. Significant investments have been made in on-board calibration to ensure the quality of the radiance observations. The Terra algorithms have been subject to extensive pre-launch testing with field data whenever possible. Intensive efforts are being made to validate the Terra data products after launch. These efforts include validation of instrument calibration (vicarious calibration), instrument and cross-platform comparisons, comparison to routinely-collected, high-quality, correlative data from ground-based networks and intensive field sites, and observations from a variety of field experiments, cruises, etc. Airborne simulator instruments have been developed for the field experiment and underflight activities including the MODIS Airborne Simulator (MAS), AirMISR, MASTER (MODIS-ASTER), and MOPITT-A. All are integrated on the NASA ER-2, though low altitude platforms are more typically used for MASTER. MATR is an additional sensor used for MOPITT algorithm development and validation. The validation activities planned for the first year of the Terra mission will be described. Detailed information about the EOS Validation Program can be found at: <http://eospsso.gsfc.nasa.gov/validation/valpage.html>.

AGU Spring 2000, Special Session A12 - EOS Terra, May 30 - June 3, 2000

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## EOS Terra Validation Program

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